

# Globalisation, equity and health: a framework of analysis

by

Giovanni Andrea Cornia,  
University of Florence

---

NIH Conference on 'Globalisation, Equity and Health',  
Washington D.C. 2-4 November 2003

# A tentative Framework

# Defining globalisation

- (i) what is it?
  - economic integration:(X/GDP, Finance/GDP; migration/pop)
  - Spread of consumption patterns, health behav, culture
- (ii) on what does it depend ?
  - **Endogenous technical change that**
    - Cuts costs of info, communic., transport (enhances cross-borders flows of goods, finance, technology, tourism, labour)
    - Enhances observability of living standards worldwide (affects decisions to migrate, consumption models)
  - **Exogenous policy decisions** (measured by policy indexes) **on**
    - External transactions(trade, FDI, portfolio finance, technology)
    - Domestic policies facilitating indirectly external transactions (taxation, labour institutions, price deregulation, privatisation)
    - International agreements on global rules (TRIPs, MAI investment, migration, global financial architecture, etc.)

# Defining the determinants of health

## **Stock variables:**

- Lifestyles (smoking, diet, drinking, KAP)
- Environmental contamination (vectors, water, air, soil)
- Structure/stability of family (adult/child ratio, com/uncomplete)
- Assets and Human capital (incl.health knowledge)
- Community solidarity and ability to undertake collective action
- Existing collective health/water infrastructure

## **Flow variables:**

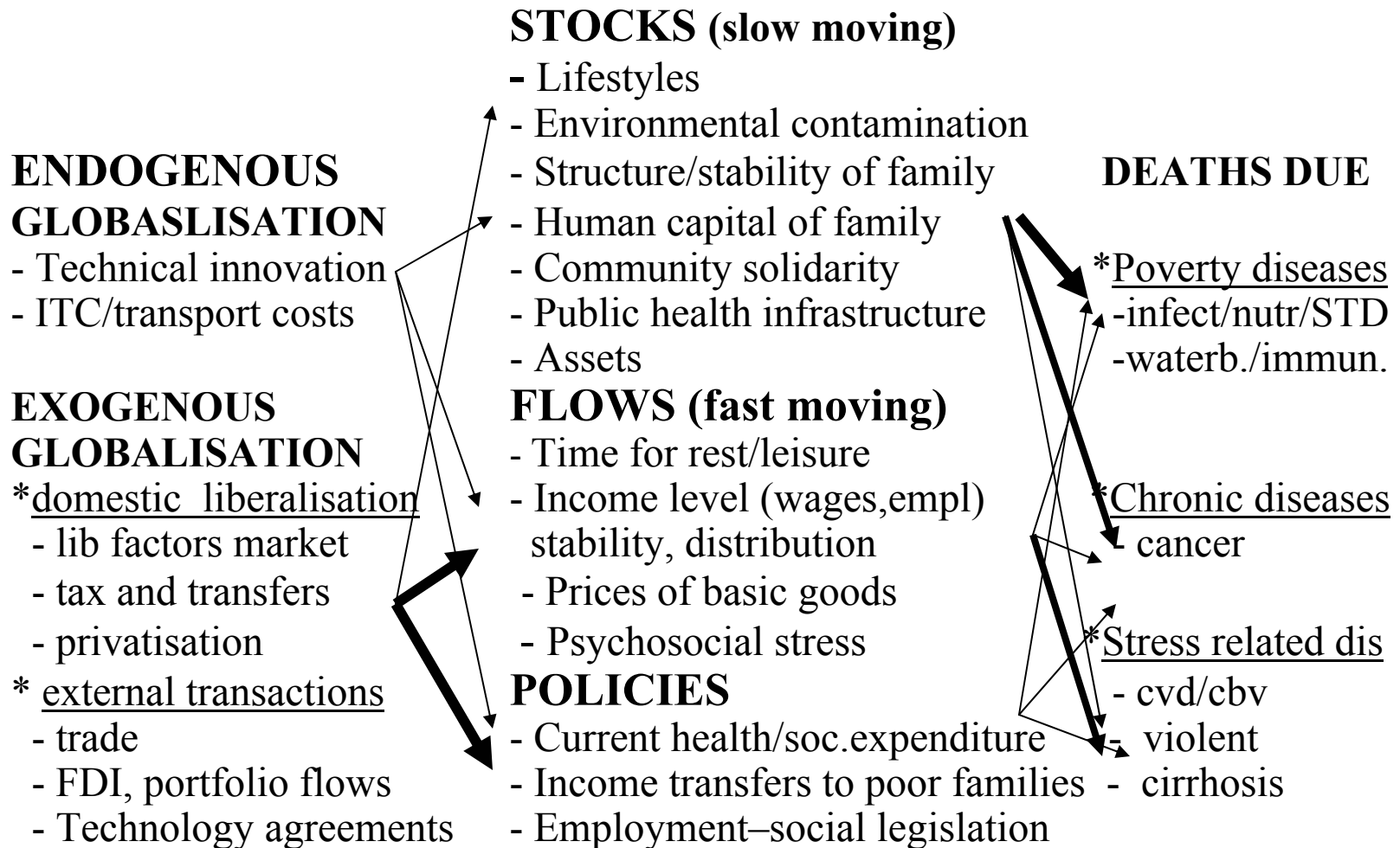
- Time of adult member of the family
- Current family income:  $GDP/c$ ,  $\sigma_{GDP/c}$ , Gini
- Prices of basic goods (food, fuel, drugs)
- Psycho-social stress (linked to uncertainty & sudden change)

## **Policy variables:**

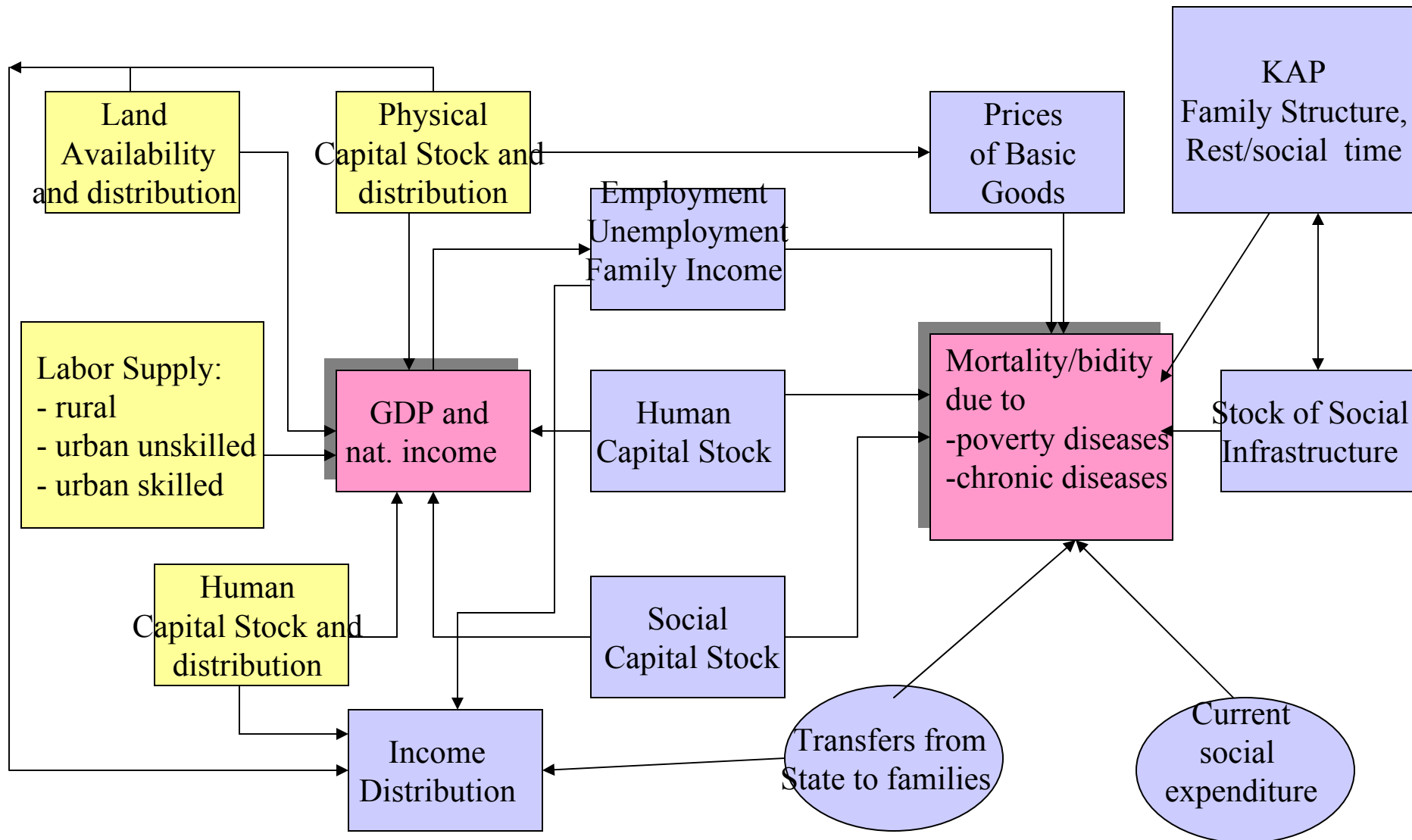
- Current public expenditure on social services
- State income transfers to poor families
- Working conditions (affect disability, disease, accidents)

# A general framework linking

**UNDERLYING FACTORS** → **IMMEDIATE CAUSES** → **HEALTH STATUS**



# *Economics and health: the 'material deprivation' pathway*



## (i) income/capita:level and stability

- Income/c is correlated with LEB, but relation is concave,  $> 5000\$PPP$  only small gains in LEB (McKweon, Preston). True for all diseases?
- Particularly at low levels, instability of income/c (+lack of insurance/credit) reduces LEB
- High variance of income/c also raises uncertainty and stress

## (ii) inequality (how high? Gini 35?50?) worsens health:

- concavity relation between GDP/c-health(Preston)
- reduced income growth via:
  - Low investment in human capital (Perotti)
  - Social tension/declining work incent.(Venieris-Gupta)
  - Decreasing returns to capital (Aghion et al)
  - Policy distort, govmnt failure(Alesina-Drazen, Birdsall)
  - 2 Exceptions: social mobility theories + Forbes
- hierarchy, loss of control (Marmot, Wilkinson)
- erosion social K cuts sharing of health info, help
- high crime rate and violent deaths (Bourguignon)
- low capacity to tax élites reduces social expendit



# Income ineq → health inequality

- High income ineq raises health inequality
  - low access to private care by poor,
  - weak state provision (inability to tax élites)
  - self-exclusion by poor?
- China is recent example (Zhang Kanbur)

	Gini	% Pers.Exp	Nat IMR	R/U IMR	F/M IMR
1981	28	18	26.9	1.5	0.9
1990	38	39	29.5	1.7	1.2
1995	43	50	39.2	2.1	1.3

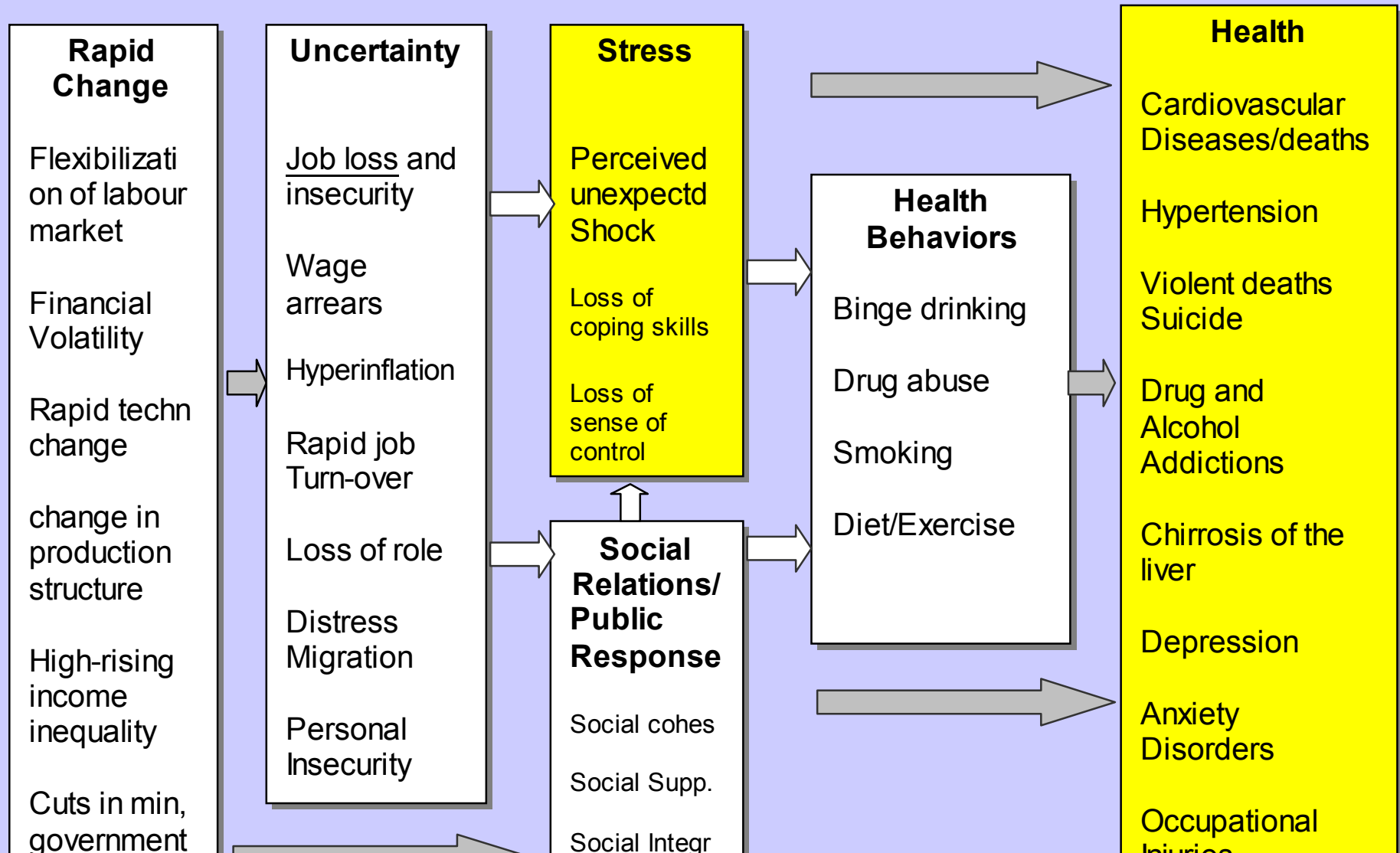
### (iii) Health expenditure and distribution

- is main channel for diffusion of knowledge technology (explains for 45% of IMR gains)
- it is essential but :
  - it also has decreasing returns
  - Its impact depends on inter-sectoral allocation
- Its impact depends also on its distribution among social groups, regions, genders

## (iv) education, esp. for women

- 38% of drop in IMR due to improvements in female educat. in poor countries(WHO)
  - key to diffusion of health knowledge
  - improves use of existing health resources (at delivery, post-partum and for vaccination)
  - better management and allocation of scarce family income (besides rising it)
  - improves female autonomy and fertility regulation (Jain)

# ***Economics and Health: the acute psycho-social stress pathway***



## (i) Labour market changes and stress

- unanticipated/unattended rises in unempl. cause
  - loss of skills, cognitive abilities, motivation, confidence
  - psych.harm (loss self respect, unwantedness, dependence)
  - erosion of norms and a greater crime rates
  - family violence and disruption of social relations
- fast restructuring and turnover, unstable jobs
  - often associated with job-search migration
  - lower quality of employment (unskilled workers)
- job conditions/security(the new l.m. model)
  - low pay, unstable, no written contract, weak bargaining conditions, wage arrears
  - deskilling, insecurity

# income inequality and stress

- A surge in inequality/social hierarchy
  - reduces access to health services (via divergence of interest and lower taxation)
  - reduces social cohesion which(with weak state) -->
    - reduces control of deviant health behavior
    - reduces crime control and increases personal insecurity
      - » in Russia crime rate up 3-4 times in CR
      - » in CR homicide rate is 50/5 times that of WE/USA)
    - increases social hierarchy and reduces latitude/control at work
  - increases personal isolation (collapse of party-state structures not replaced by eroding civil society)
  - increases sense of frustration

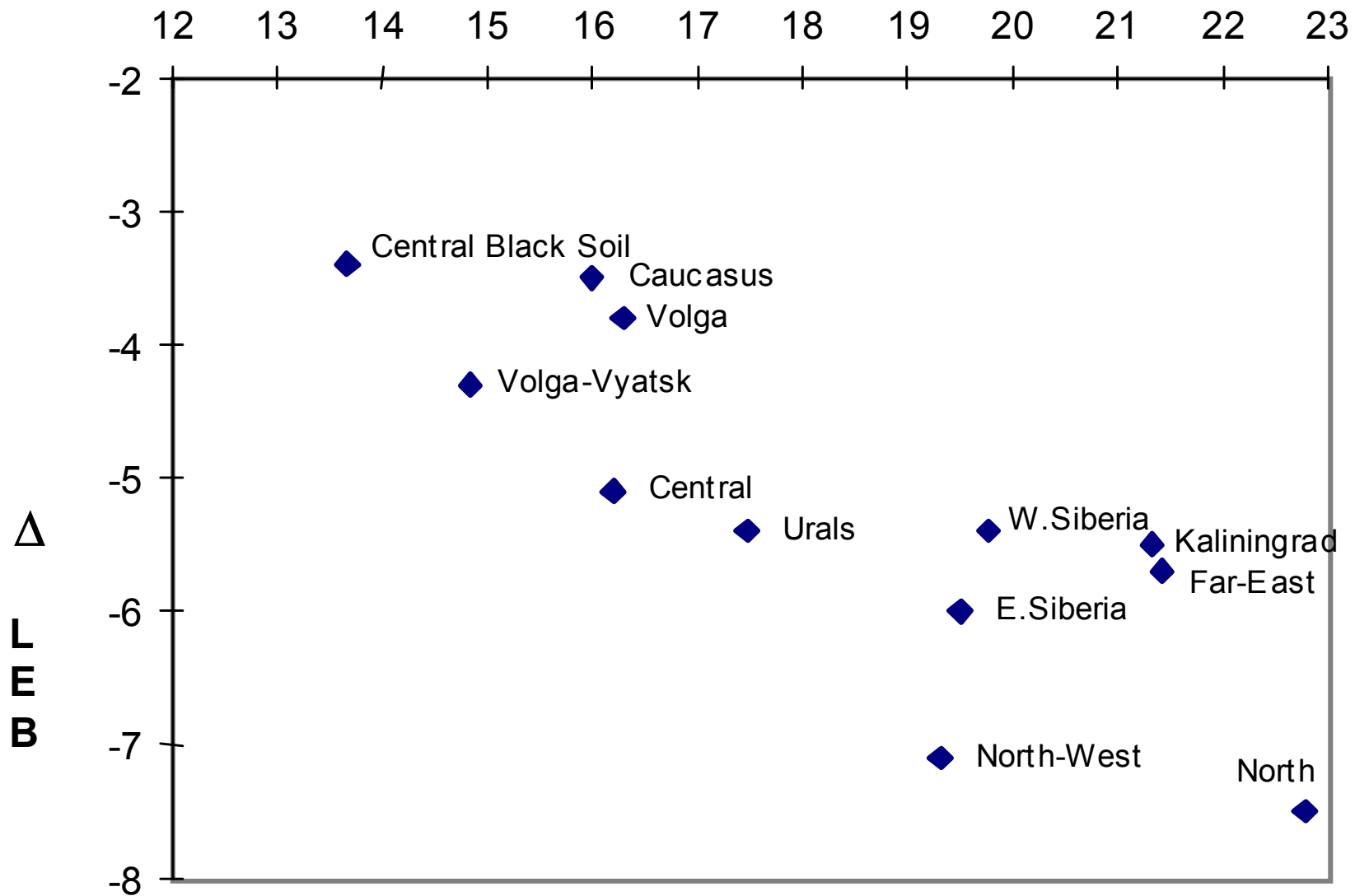
# Labor mkt changes:Russia & CR

»	Russia	Czech Republic
• privatization	fast/inequitable	slow/equitable
• reg Unempl. R '95	3.2	3.0
• ILO Unempl.R	12.0	4.5 ?
• % U in ALMP	33	75
• unattended U.R.	7.8	1.5
• wage bill/GDP'94	39.5	60.9
• minwage/av wage'95	26.9	8.8
• wage arrears	high	very rare
• Gini wages'94	46.4	24.0

# Erosion of fam/social networks and stress

- CDR rises in adult MR depresses % married adults.  
This raises SDR as married people
  - lead healthier lives than singles
  - are less exposed to stress
  - have greater access to social networks
  - do not suffer from bereavement as widows/widowers
- migration (esp. distress migration) causes
  - material hardship and housing problems
  - loss of established social networks
  - disorientation in new environment





Stress caused by unexpected situations (Unemployment, Labour turn-over and shift in the % of married adults), 1989-93, Russia

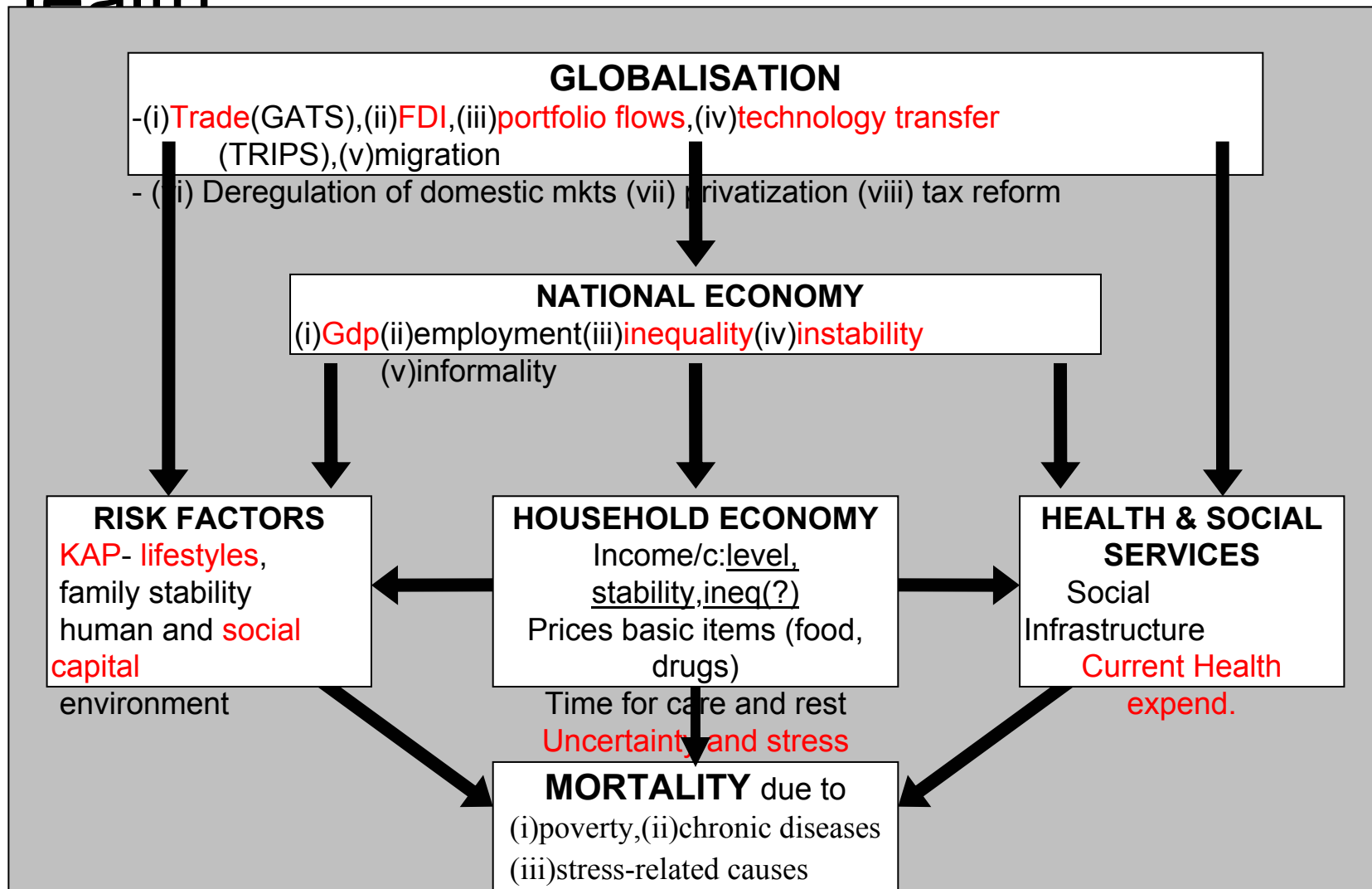
# Historical examples of mortality changes induced by sharp changes

- Rapid 1860-80 industrialisation in UK (Szreter)
- The freeing of the slaves in the USA (Meeker)
- Russian mortality crisis(92-4+98-01) (Cornia-Paniccia)
- East Asian crisis/S.Korea (World Bank, Cornia)
- Japan in the 1990s (Lamar)
- Warangal District, Andhra P., '98-9 (Sudhakumari)
- and .... impact of 'rapid entry' of China in WTO ?

## 2. Key pathways of the impact of globalisation on health

# Framework Linking Globalisation &

## Health



2.1.

Globalisation, (health) technology  
transfer and health

# 1. Transfer of technology & health

- ITC revolution reduces the cost of spontaneous information diffusion
- This facilitates spread of health knowledge and improves health (if social networks operate well)
- Trade (e.g. in vaccines) → health improvements
- market based technology transfer depends on its cost. This is rising because of TRIPS
- ‘international mkt failure’ as health research focuses little on Southern problems

## 2.2

Globalisation of trade, finance, factors  
markets and inequality/growth

- Standard econ theory predicts that due to L+G
  - Trade increase lab-intensive exports & employment of unskilled workers in dg's, reduce prices of goods and raises consumer welfare
  - FDI and portfolio flows raise employment of unskilled workers while technology raises firms competitiveness
  - Mkt liberalisation stimulate competition & efficiency,
  - Thus, G+L= more growth and perhaps equality → less poverty/more health
- True? false?
  - True 'in theory' under restrictive conditions and 'in practice' in limited n.of countries – at the moment -
  - In other cases, G + L may have been implemented prematurely and backfired
  - Time horizon of evaluation and 'transition costs'
  - They should be pursued when conditions are met

details on next pages →



# (i) Trade liberalisation, ineq/growth

- Trade Theory: reduces ineq in LIC, raises it in OECD (HO-SS), accelerates growth, reduces prices
- Observed trends: A mixed picture
  - Improved distribution/growth in SEA in 60/70s (Wood) and –ceteris paribus – in Coastal China in 90s (various)
  - Worsening in LA, Philippines, EE in 1990s (Williamson)
  - Regression analyses:
    - Free trade raises growth, reduces poverty (Sachs/Warner, Dollar)
    - Overall relation is indeterminate (Rodrik/Rodriguez, Vivarelli)
- Theoretical explanations beyond HO/SS (2x2x2)
  - Skill Enhancing Trade raise capital (not labour) intensity
  - Hanson Feenstra effect
  - Structural rigidities and ‘national institutions’ (Rodrik)
  - Commodity depend+price shocks (Birdsall/Hammoudi)
  - Asymmetric liberalisation and protectionism (Slaughter)

## (ii) Liberalisation of FDI & Ineq

- FDI Theory: ‘greenfield FDI’ reduces ineq as it raise labour demand-wages of unskilled workers:
- Observed trends: A mixed picture (Woodward)
- Alternative theoretical explanations of discrepancy
  - advantages of FDI are greatest in labour-intensive manufacturing, not in capital-or-resource inten. sectors
  - M&A in utilities sector. The equity effect of this operation has depended on the sale price of assets, prices of services supplied and industrial restructuring.
  - ‘Business stealing’ from SME is regressive,
  - N-S plant relocation & skill-biased tech. change

# (iii) portfolio flows & inequality

- Theory: inequality falls due to jobs creation & better inter-sectoral/temporal allocation of funds
- Observed trends:
  - Moderate worsening for inflows (Taylor), large ones for crisis outflows (Galbraith, Diwan)
- Alternative theoretical explanations
  - inflow of portfolio flows trigger :
    - Appreciation RER: less labor absorption + job outsourcing  
Trigger credit booms with high i.r.+strong e.r raise CS (Taylor)
    - Intersectoral alloc: funds go to rent and capital intensive FIRE
  - mass outflows
    - Panic, herd behavior, contagion, recession → fall WS (Diwan)
    - poor affected most via jobs, wage, price effects (Levinshon)

# (iv) Reform of taxes/transfers and inequality

- Theory: Tax reform not inspired by OTT/equity but by ‘admin. simplification’. Lower progressivity to be offset by broadening tax base + VAT. Neutral effect & growing yields (Laffer)
- Observed trends
  - Reduced yields/progressivity, less equalizing (Chu et al.)
  - Mixed evidence of progressivity of transfers (SEF)
- Alternative theoretical explanations
  - Lower progressivity/simpl. prevailed on tax broadening
  - Gradual dominance of (non-graduated) indirect taxes
  - ‘Race to bottom’ to attract FDI affects tax rate/holidays

# Bourguignon-Morisson (2002) confirm inequality rise over l.t.

(average value of within-country inequality coefficients)

- 1820 1870 1910 1950 1960 1970 1980  
1992

- Theil 0.462 0.484 0.498 0.323 0.318 0.315 0.330  
0.342

MID 0.070 0.030 0.030 0.030 0.030 0.031 0.031

# Inequality trends after adjustment for last 6-7 years

- OECD    Developing\*Transition
- Total

• -----

- **rising**                      12                      20                      21                      53

- constant                      2                      11                      0
- 13

- declining                      2                      3                      2                      7

• -----

- **Total**                      16                      34                      23                      73

- \* Increases were most frequent in L.America and the Asian transition economies, followed by S. Asia and recently by S.E. + E. Asia, Africa

# Slow growth of GDP/c, except for few countries

1960-9 1970-9 1980-9 1990-8

<b>World</b>	<b>3,4</b>	<b>1,8</b>	<b>1,2</b>	<b>0,8</b>
<b>OECD</b>	<b>4,3</b>	<b>2,5</b>	<b>2,2</b>	<b>1,4</b>
• <b>E.Asia (excl. China)</b>	<b>4,9</b>	<b>5,1</b>	<b>3,2</b>	<b>....</b>
<b>China</b>	<b>1,3</b>	<b>4,4</b>	<b>7,7</b>	<b>9,2</b>
<b>E.Europa &amp; C.Asia e</b>	<b>5.0*</b>	<b>2.3*</b>	<b>2.1*</b>	<b>-3.3</b>
<b>L.America</b>	<b>2,7</b>	<b>3,3</b>	<b>-1,1</b>	<b>1,9</b>
<b>MENA</b>	<b>..</b>	<b>..</b>	<b>-0,4</b>	<b>0,7</b>
<b>S.Asia excl India</b>	<b>2,3</b>	<b>0,6</b>	<b>3,0</b>	<b>2,5</b>
<b>India</b>	<b>..</b>	<b>0,8</b>	<b>3,4</b>	<b>3,8</b>
<b>SSAfrica</b>	<b>2,6</b>	<b>0,6</b>	<b>-1,1</b>	<b>-0,5</b>

2.3.

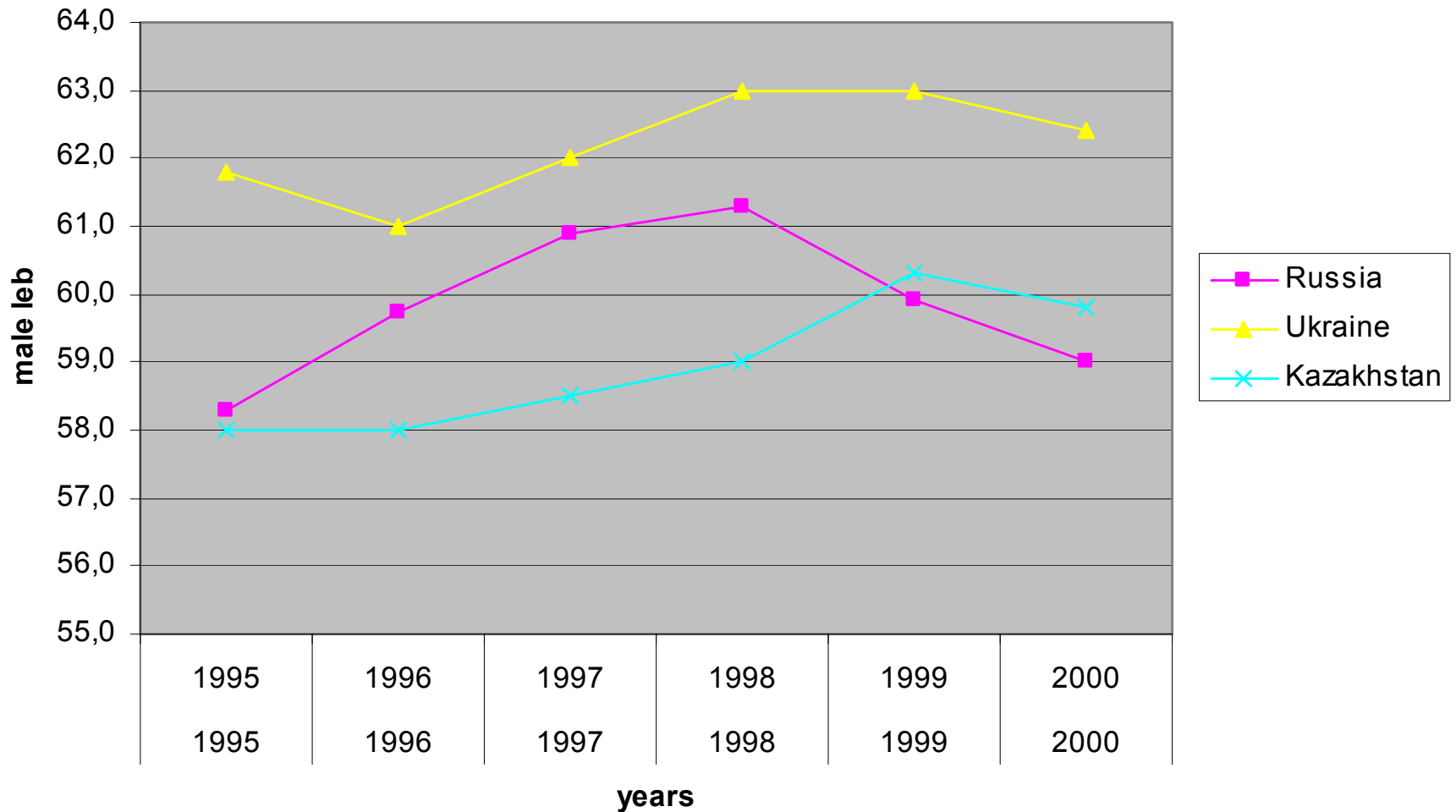
Globalisation and instability



# Rise of unregulated portfolio flows raises n. financial crises

- Has instability risen? A mixed picture
  - The number of financial crises and poverty have risen,  
-----
  - Incidency of poverty:      before              during              after  
-----
  - Argentina (87-90)              25.2              47.3              33.7
  - Argentina (93-7)              16.8              24.8              26.0
  - Jordan (86-92)              3.0              ....              14.9
  - Mexico (94-6)              36.0              ....              43.0  
-----
  - The countries affected by contagion likely rose
  - USA,China,India (forbid such flows) had stable growth
  - for same GDP/c, greater variance reduces LEB and raises uncertainty and stress

# the 1998 Russian financial crisis and leb



# Impact of August 1998 financial crisis and rouble devaluation

- Loss of life expectancy at birth in 1999-2000

	URBAN		RURAL	
	Males	all	Males	all
• Russia	2.4	1.8	1.9	1.5
• Moscow	2.9	2.0	0.9	0.7
• St. Petersburg	3.8	3.3	....	.....
• Lening.obl	4.3	3.5	4.0	3.3

- the increase in death was due to Cvd and violent causes

2.4.

Globalisation and public expenditure  
and social standards

# Globalisation erodes public provision of health care?

- ‘Race to the bottom’ erodes also legislation on trade-unions, min-wages, safety at work, child labour & environment
- No systematic evidence of falls in public expend health, (China down but other constant/up, as LA)
- Effect of price of drugs (TRIPS), and of GATS?
- Norm-erosion can lead to health/injury hazard,
- FDI outsourcing: tough verify norms compliance

3.

Some health trends

# Slowdown in social progress

- Slower gains in wellbeing (Cornia –Menchini)
  - world IMR drops by 2.7% a year in 1980s, but by 1.3% in 90s
  - Simulated lower gains in LEB
    - In 2000, LEB was > 2.1 years in LIC, 1.4 in MIC in relation to base scenario (GDP growth, inequality, technology and parameters were the same as in Golden Era).
  - child malnutrition drops by 1.6% in 80s to 0.8% in 90s (Haddad)
- Growing polarisation of social gains
  - divergence in IMR between regions and countries (CV)
  - growing polarisation in some distributions of IMR by
    - Urban- rural
    - Maternal education

# $\Delta$ Leb (male) 1989-99 in EE-FSU

»

– Max loss  
– since 1989

Change over  
1989 –1999

Change over  
1989-1991

- |              |              |       |       |
|--------------|--------------|-------|-------|
| • Belarus    | - 4.6 (1999) | - 4.6 | - 0.3 |
| • Russia     | - 6.6 (1994) | - 4.3 | - 0.7 |
| • Ukraine    | - 5.0 (1996) | - 3.0 | - 2.0 |
| • Moldova    | - 3.7 (1995) | - 1.3 | - 1.2 |
| • Kazakhstan | - 5.5 (1995) | - 3.6 | - 1.2 |
| • Kyrgystan  | - 2.9 (1995) | - 1.2 | 0.3   |



# In conclusion

- Globalisation has large potential for improving health (e.g. through health technology gains in poor countries)
- Potential (old and new) gains and threats
- A good deal of these benefits probably do not seem to have been enjoyed because of mkt, financial, governance distortions